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#### SAN FRANCISCO MARITIME NATIONAL HISTORICAL PARK

#### HAZARDOUS MATERIALS/WASTE SURVEY REPORT

Prepared For

NATIONAL PARK SERVICE
WESTERN REGION

By

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#### SAN FRANCISCO MARITIME NATIONAL HISTORICAL PARK

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#### SCOPE OF WORK:

- Conduct and/or verify a physical inventory of all material that when disposed of may constitute a hazardous waste as defined by 40 CFR Part 261 and/or State regulations. Inventory shall include all San Francisco Maritime NHP facilities located in the City and County of San Francisco. Provide the National Park Service with:
  - A. List of all material inventoried by product name, quantity, container size and type, location, EPA hazard code, and if MSDS is available.
  - B. List of all hazardous waste awaiting disposal with accumulation start dates. In addition to information required in item A, provide EPA hazardous waste and Hazard code No. for each item listed and identify items that can be combined or mixed for disposal.
- 2. Using physical inventory, hazardous waste disposal manifest, and other pertinent information, develop a waste stream for each NPS facility and/or logical grouping of facilities. Provide the National Park Service with:
  - A. A waste stream report that estimates the quantity and type of hazardous material generated at each NPS facility. Report shall include methodology for conducting waste stream and rational or conclusion.
  - B. Cost estimates for routine disposal of generated hazardous waste.
- 3. Do a compliance assessment and evaluation of the management of routinely generated hazardous waste in accordance with federal, state, and local regulatory requirements. Compliance assessment shall be based on the State of California and EPA compliance check lists. Review shall emphasize but not be limited to storage, handling, disposal, transportation, employee awareness and training. Provide the National Park Service with:
  - A. A summary of existing programs and recommendations for improvement.
  - B. A compliance assessment listing specific deficiencies by citation in complying with federal, state, and local regulatory requirements (based on EPA and state compliance checklists).
  - C. Specific recommendations for complying with regulatory requirements listed in item B.
  - D. Specific recommendations for reducing the quantity of hazardous waste generated (recycling, new products, substitute products, etc.).
  - E. An evaluation of employee training and knowledge of hazardous waste requirements through interviews with key employees and review of employee training records.
- 4. Review park programs for monitoring the hazardous waste activities of it's tenants. Provide NPS with:

- A. A synopsis of existing park programs and an assessment as to effectiveness of such programs to monitor and encourage compliance with regulatory compliance.
- B. Recommendations for improving existing programs.
- 5. Do an inventory of potential hazardous waste sites within the park boundary that may be subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Provide NPS with:
  - A. List of sites by location, suspected hazard, current status, and other pertinent information.
- 6. Do an inventory of underground storage tanks. Provide NPS with:
  - A. A list of tanks by size, location, status, contents, condition, and if tank meets current regulatory requirements.
- 7. All reports are to be produced utilizing Wordperfect 5.1 and/or dBase III software. A copy of the disc and five (5) hard copies of all reports will be submitted to the National Park Service, Western Regional Office, for items one (1) through four (4) by August 31, 1991, and five (5) through six (6) by September 30, 1991.

#### **EXECUTIVE SUMMARY:**

Ace Pacific Co. under contract to the National Park Service, Western Region, performed a Hazardous Material/Waste Survey at San Francisco Maritime National Historical Park. The survey included all areas of Park operations and their tenants.

We conducted a physical inventory of all hazardous material and hazardous waste storage areas within the Park boundaries, observing hazardous material/waste management practices, and interviewing all levels of Park and tenant personnel concerning the levels of hazardous material/waste training they have received.

The most troublesome sites at SFMNHP are the "Pump House" and the Jeremiah O'Brien. The Pump House is an old concrete structure at the intersection of Hyde and Jefferson in Aquatic Park which is being used as a hazardous materials/hazardous waste warehouse. The building as currently arranged and operated is unsuitable for that purpose. Moreover, the proximity of the storage to a high traffic area represents an high degree of exposure to the safety of park visitors and the general public.

The Jeremiah O'Brien, by accepting waste oils and waste paint thinners from other areas of SFMNHP, from Golden Gate National Recreational Area, and other "donors" for burning in the ships boiler or for recycling is, in fact, and according to the law, an unpermitted processor of hazardous wastes. Pier 3 is being used as a receiving and staging area for waste oils and is seriously deficient for that purpose.

Other hazardous materials/waste problems at SFMNHP are more administrative in nature. Management plans and training are lacking or inadequate. The staff seems generally aware that hazardous materials require special attention, and we get the sense that everyone is eager to cooperate and to comply with the regulatory requirements. However, they have not been provided with policies or guidance to properly manage the problems. A comprehensive management plan together with a rather modest investment in facilities could do much to further the stated goals of making the park a "model agency" for dealing with hazardous materials.

To begin addressing these deficiencies, we recommend the following actions:

- 1. Make the management of hazardous materials/waste a part of <u>everyone's</u> job description.
- 2. Develop a San Francisco Maritime National Historical Park Employee Hazardous Materials Communication Program per 29 CFR 1910-1200 that will provide the following training:
  - (a) Minimum half-day in-house Hazardous Materials/Waste Awareness Training for <u>all</u> Park personnel. Include elements of this training in the orientation of all new employees.
  - (b) Minimum half-day (in addition to Awareness training) in-house site specific Hazardous Materials/Waste Storage, Handling, and Disposal Training for personnel required to work directly with hazardous materials.

Note: Offer at a small fee, attendance to these training sessions to all tenant personnel.

- 3. Select one supervisor and one staff person to receive 40 hour Emergency Response Training. At least two trained people are needed to safely respond to any hazardous materials/waste incident.
- 4. Require all tenants to develop an "Employee Hazardous Material Communications Program" per 29 CFR 1910.1200.
- 5. Develop Hazardous Materials Management Plan per 1991 Edition of Uniform Fire Code Article 80.103(b) in accordance with the San Francisco Health Code. Include Hazardous Waste Management Program. Require the same from all tenants.
- 6. Contract for the development of Communication Program and Management Plans and in-house training sessions.
- 7. Cease current operation of the "Pump House" as a hazardous materials/hazardous waste warehouse.
- 8. Cease accepting and processing waste hydrocarbons at the Jeremiah O'Brien.
- 9. Establish a central storage and distribution facility for all flammable and combustible liquids, such as gasoline, paint, paint solvents, etc.
- 10. Apply for an EPA identification number for the proper disposal of hazardous wastes.
- 11. Dispose of current accumulations of hazardous wastes in accordance with State of California CRC Title 22.
- 12. Label all containers.
- 13. Establish container management program to include periodic inspections and replacement as needed.
- 14. Determine volume and concentration of photo chemical waste stream.

The regulatory issues surrounding the subject of hazardous materials and hazardous waste is extremely complex. Federal, State of California and San Francisco statutes often overlap and are sometimes contradictory. Our survey lists those compliance issues which, in our professional judgement, pose the greatest environmental risk or the most severe exposure to the health and safety of park employees and visitors. This survey is a technical evaluation, not a determination of legal responsibility. The referenced compliance assessment is not intended to be an exhaustive listing of all statutory requirements. The National Park Service is responsible for compliance with all applicable laws regulating hazardous materials and hazardous wastes.

The cost estimates for disposal of hazardous wastes are, wherever possible, based upon quotes from permitted contractors routinely handling similar materials. Actual costs for disposal however, can vary widely due to unforeseeable conditions. All costs cited in this report should be regarded as order of magnitude estimates.

#### I. PHYSICAL INVENTORY:

#### A. Hazardous Materials:

The following inventory is a verification of material inventories prepared by management and employees of SFMNHP where available. For some areas inventories had not yet been prepared by the park and were independently compiled by Ace Pacific Company. In many locations exact verification or identification was difficult or impossible due to storage arrangement or due to incomplete container labeling. In The Pump House for example, the materials were so densely stacked that survey would have been impossible without removing half or more of the materials from the building. Material Safety Data Sheets identifying the material constituents and hazards were available in only 1 or 2 locations. Given the limitations of our observations, verification of quantities and classification of material hazard are as accurate as possible.

## HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS				
EPPLETON HALL				٠					
FLAMMABLE LOCKER	FLAMMABLE LOCKER:								
Solvent-based Paint	12 gals	1-gallon can	Flammable	D001	No				
Gum Turpentine	1 gal	1-gallon container	Flammable	D001	No				
Paint Thinner	1 gal 1 qt	1-gallon & 1-quart containe	Flammable	D001	No				
Oil-based Woodstain	2 qts	1-quart can	Flammable	D001	No.				
Aerosol Spray Paint	24 oz	12-ounce can	Flammable	D001	.No				
Aerosol Rust and Corrosion Preventati Penetrant and Lubricant	ve- 12 oz	12-ounce can	Flammable	D001	.No				
Aerosol Furniture	12 02	12 001100 0011		2001	,,,,,				
Cleaner	12 oz	12-ounce can	Combustible	D001	No				
Furniture Polish P-P-53B	16 oz	1-quart bottle	Flammable	D001	No				
Refillable Spray Bottle w/ Unidentified Liquid	1 oz	16-ounce bottle	-		No				
<u>EUREKA</u>									
SECOND DECK ENGI	NE ROOM:								
Unidentified Material	1	App 35-gallon drum	- ,	-	No				
SECOND DECK NEAF	R TOOL CRIB:								
Unidentified tarry substance	2	cans	-	-	No				

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
Engine Oil, 306	0.5 qt	1-quart can	Combustible	N/A	No
MAIN DECK, WORKS	HOP AREA:				
WD-40 Lubricant- Penetrant	1 gal	1-gallon can	Flammable	D001	No
Unidentified Material Labeled "Diesel"	2 gals	5-gallon can	-		
Coffee Cans of Unidentified Hydrocarbon Fluid	56 oz	26-ounce can		-	No
Compound for Filling and Patching of Concrete	1 gal	5-gallon can	Corrosive	D002	No
Unidentified Material	1 gal	5-gallon container	-	-	No
Pine Oil General- Detergent Disinfectant	0.5 gal	1-gallon container	Combustible	D001	No
BALCLUTHA					
SECOND DECK - CON	MBUSTIBLE RO	DOM:			
Asphalt Coating	3 gals	1-gallon	Combustible	D001	Yes
Red Lead Mixture	2 gals	1-gallon, metal	Flammable	D001,D008	No
Red Lead Mixture	2 gals	1-gallon, plasti	c Flammable	D001,D008	No
Red Lead Paste	5 gals	5-gallon, plasti	c Combustible	D001,D008	Yes
Turpentine & Linseed Oil	1 gal	1-gallon, plasti	c Combustible	D001	No
Slushing Compound	7 gals	5-gallon, plasti	c Combustible	D001	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER H	AZARD CLASS	EPA WASTE CODE	MSDS
Magna Fill Epoxy	17 gals	5-gallon, plastic	Combustible	N/A	Yes
Linseed Oil	2 gals	1-gallon, plastic	ORM-E	N/A	Yes
Flexible Membrane	10 liters	5-liter, plastic	Combustible	D001	Yes
Rust & Scale Remover	3 gals	1-gallon, plastic	Corrosive	D002	Yes
Neats Foot Oil	1 gal	1-gallon, metal	Combustible	N/A	Yes
Splash Zone Comp.	1 gal	1-gallon, metal	N/A	N/A	No
Chlorine Tablets	70 lbs	5-gallon can	ORM-C	N/A	Yes
Insecticide D	36 oz	18-ounce, metal	Poison B	N/A	Yes
Ammonium Hydroxide	2 qts	1-quart, plastic	Corrosive	D002	Yes
Floor Wax	10 gals	5-gallon, plastic	Combustible	N/A	Yes
Bleach	2 gals	1-gallon, plastic	ORM-E	N/A	Yes
Scouring Powder (Bleach)	44 oz	22-ounce, paper	ORM-C	N/A	Yes
Pine Tar	5 gal	5-gallon, plastic	Combustible	D001	No
SECOND DECK - PAIN	NT LOCKER IN	WORKSHOP ARE	<u>A</u> :		
Thinner	2 gal	1-gallon	Flammable	D001	No
Japan Dryer	1 gal	1-gallon	Flammable	D001	No
Denatured Alcohol	1 gal	1-gallon	Flammable	D001	No
Laquer Thinner (Cellulose Nitrate)	1 gal	1-gallon	Flammable	D001	No
Turpentine	1 gal	1-gallon	Flammable	D001	No
WD-40	1 gal	1-gallon	Flammable	D001	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	Н	AZARD CLASS	EPA WASTE CODE	MSDS
Contact Cement	1/4 gal	1-gallon		Flammable	D001	No
Neats Foot Oil	1 gal	1-gallon		Combustible	D001	No
Lube Oil	1 gal	1-gallon		Combustible	N/A	No
Ероху	1 qt	1-quart		ORM-E	N/A	No
Various Enamel Spray	48 oz	12-ounce aerosol can		Flammable	D001	No
Red Lead Paste	1 gal	1-gallon		Combustible	D001,D008	No
Chinese Red	1 gal	1-gallon		Combustible	D001	No
Tar Slush	1 gal	1-gallon		Combustible	D001	No
Bedding Compound	1 gal	1-quart		N/A	N/A	No
Waterproofing	1 gal	1-gallon		Combustible	N/A	No
Undercoat Enamel	2 gals	1-gallon		Combustible	D001	No
Zinc Chromate	1 gal	1-gallon		Combustible	D001	No
Seam Coating	1 qt	1-quart		Flammable	D001	No
White Lead	1 qt	1-quart		Combustible	D001,D008	No
Epoxy Primer	2 gals	1-gallon kit		Flammable	D001	No
Japan Varnish	1 qt	1-quart		Flammable	D001	No
Red Hand, Epoxy Filler	1 qt	1-quart		Flammable	D001	No
Thinner	55 gals	55-gallon		Flammable	D001	No
Rust Barrier	55 gals	55-gallon		Flammable	D001	No
Unlabeled	55 gals	55-gallon		-	-	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: HYDE STREET PIER

EGG/MON. MUSE OTHER TIEN							
PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS		
SECOND DECK - WOR	KSHOP AREA	<u>.</u>					
Oxygen	1 cylinder	-	Nonflammable	N/A	No		
Carbon Dioxide	1 cylinder	-	Nonflammable	N/A	No		
THIRD DECK							
Pine Tar	20 gals	55-gallon metal drum	Combustible	D001	No		
Unlabeled	10 gals	55-gallon metal drum	-	-	No		
Fluid Film Rust Preventative	300 gals	55-gallon drums	s Combustible	N/A	No		
Empty Plastic Drum	1	55-gallon	-	-	No		

### **THAYER**

Survey of the Thayer disclosed no Hazardous Materials or Hazardous Waste on board the ship contains no workshop or storage spaces.

### **EMERGENCY GEAR LOCKER**

Gasoline	12 gals	6-gallon	Flammable	D001	No
Propane	10 gals	5-gallon pressured cylinder	Flammable	D001	No
Chain Saw Bar and Chain Lubricant	1 gal	1-gallon plastic container	ORM-E	N/A	No
Gear Lubricant	12 oz	12-ounce aerosol container	Combustible	N/A	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER HA	AZARD CLASS	EPA WASTE CODE	MSDS
Rust Protection	12 oz	7-ounce aerosol container	Flammable	D001	No
Insecticide D-Trans Allerthin and Resmethrin	11 oz	11-ounce aerosol can	N/A	N/A	No
Mobil Gear Compound	Í.				
Mobil Gear Compound	I 16 oz	16-ounce can	ORM-E	N/A	No
Cutting Tool Coolant and Lubricant	1 qt	18-ounce aerosol can	Combustible	N/A	No
Motor Oil	1 qt	1-quart container	Combustible	N/A	No
Flammable Engine Paint	12 oz	12-ounce aerosol can	Flammable	N/A	No
Lubricating Oil	App 4 oz	plastic atomizer bottle	Combustible	N/A	No
Lithium Soap Lubricating Grease	56 oz	14-ounce paper container	ORM-E	N/A	No
2-Cycle Engine Oil	1 qt	16-ounce metal container	Combustible	N/A	No
Engine Oil	2 gals	1-quart container	Combustible	N/A	No
Rubber Cement	2 qts	1-quart metal container	Flammable	D001	No
FLAMMABLE STORA	GE CABINETS	NORTH OF THE E	MERGENCY GEA	AR LOCKER:	
Gasoline	20 gals	5-gallon metal container	Flammable	D001	No
Motor Oil	1 qt	1-pint metal container	Combustible	D001	No

# HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER HA	AZARD CLASS	EPA WASTE CODE	MSDS
Wood Preservative	10 gals	5-gallon metal container	Combustible	D001	No
Dry Paint	Empty	1-gallon container	-	-	No
Paint Thinners	App 10 gals	Seven 1-gallon open top metal containers, one 1-gallon closed plastic container	Flammable	D001	No
Paint, Oil-based	35 gals	1-quart/7-gallon containers	Combustible	D001	No
Wood Bleach (Oxalic Acid)	App 5 lbs	1-pound plastic containers	Corrosive	D002	No
Paint	6 gals	1-gallon metal container	Flammable	D001	No
SMALL BOAT SHOP					
FLAMMABLE LOCKER	<u>RS</u> :				
Paint, Oil based	76 gals	1&5-gallon	Flammable	D001	No ·
Aliphatic Polyurethane	3.5 gals	1-gallon	Combustible	D001	No
Mineral Spirits, Thinner	2.5 gals	1-gallon	Flammable	D001	No
Primer	1 qt	1-quart	Combustible	D001	No
Varnish	2.5 gals	1-gallon	Flammable	D001	No
Methylene Chloride	1 gal	1-gallon	ORM-A	U080	No
Oil-based Spray	60 oz	15-ounce	Flammable	D001	No
Thomson Water Seal	1 gal	1-gallon	Flammable	D001	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
Epoxy Resin	4.5 gal	5-gallon	ORM-E	N/A	No
Epoxy Sealer	2 qts	1-quart	Combustible	D001	No
Red Lead Paste	43 gals	5-gallon	Combustible	D001,D008	No
Copper Anti-Fouling	1 gal	1-gallon	Flammable	D001	No
Acrylic Finish	10 gals	5-gallon	Flammable	D001	No
Penetrol	1 gal	1-gallon	Combustible	D001	No
Gasoline	21 gals	5-gallon	Flammable	D001	No
Terminx	100 gals	5-gallon	Combustible	N/A	No
Linseed Oil	10 gals	5-gallon	Combustible	N/A	No
Micro Ballons	16	N/A	N/A	N/A	No
Brake Fluid	1 gal	1-gallon	Combustible	D001	No
Wood Preservative	100 gals	50-gallon	Poison B	F027	No
Turpentine	1 gal	1-gallon	Flammable	D001	No
Propane	3 cylinders	-	Flammable	D001	No
CORROSIVE CABINET					
Lead Acid Battery	1	-	Corrosive	D002	No
Gasoline	15 gals	5-gallon can	Flammable	D001	No
Mineral Spirit	1 qt	1-gallon can	Combustible	D001	No
Corrosion Prevent- ative Spray	12 oz	12-ounce can	Combustible	N/A	No
Zinc Chromate Primer	13 oz	13-ounce bottle	Combustible	D001	No
Motor Oil	1 pt	1-quart can	Combustible	N/A	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
OPEN SHELF INSIDE T	HE SHOP	٦			
Paint, Oil-based	1 gal	1-quart can	Flammable	D001	No
Epoxy Hardener	1 gal	1-quart can	Flammable	D001	No
Epoxy Resin	1 gal	1-gallon can	ORM-E	N/A	No
Denatured Solvent	partially empty	16-ounce can	Flammable	D001	No
BOOKSTORE, OUTSIE	DE, WESTSIDE				
Latex Paint	6 gals	5-gallon can	ORM-E	N/A	No
Lemon Oil	1 gal	1-gallon metal can	Combustible	N/A	No
Redwood Deck Preservative	2 gals	5-gallon plastic bucket	Combustible	N/A	No
Lubricating Oil Spray	20 oz	16-ounce can	Combustible	N/A	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: PUMP HOUSE

PRODUCT NAME	QUANTITY	CONTAINER H	AZARD CLASS	EPA WASTE CODE	MSDS BLDG	
Paint Thinner	13 gals	1&5-gallon metal	Flammable	D001	No	
Clear Lacquer	15 gals	5-gallon	Flammable	D001	No	
Linseed Oil	70 gals	5-gallon	Combustible	D001	No	
Alvania Grease	25 gal	5-gallon, plastic	ORM-E	N/A	No	
Kerosene	10 gals	1-gallon, plastic	Combustible	D001	No	
Red Lead Paste	128 gals	1&5-gallon, metal	Combustible	D001,D008	No	
Paint, Oil-base	114 gals	1&5-gallon, metal	Flammable	D001	No	
Paint, Oil-base	113 gals	1&5-gallon, metal	Combustible	D001	No	
Paint, Water-base	11 gals	1-gallon, metal	ORM-E	N/A	No	
Paint, Epoxy	32 gals	1&5-gallon, meta	Flammable	D001	No	
Kerosene	10 gals	5-gallon, metal	Combustible	D001	No	
Raw Linseed Oil	110 gals	55-gallon	Combustible	N/A	No	
Fibran 280	48 gals	16-gallon, metal	N/A	N/A	No .	
Plastic Filler	6 gals	1-gallon, metal	ORM-E	N/A	No	
Instant Windshield	4 gals	1-gallon, plastic	N/A	N/A	No	
Corroseal	3 gals	1-gallon, plastic	N/A	N/A	No	
Turpentine	24 gals	1&5-gallon, meta	Flammable	D001	No	
Wood Preservative (Pentachlorophenol)	1 gals	1-gallon, metal	Poison B	F027	No	
Wood Preservative (Pentachlorophenol)	10 gals	5-gallon, metal	Poison B	F027	No	
Cuprinol Wood Preservative	9 gals	1-gallon, metal	Combustible	N/A	No	



### HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: PUMP HOUSE

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS	BLDG
Stop Rust	2 gals	1-gallon, metal	Flammable	D001	No	
Stains, Oil	1.5 gals	1-gallon, metal	Flammable	D001	No	
Zinc Chromate Primer	1 gal	1-gallon, metal	Combustible	D001	No	100
Logwood Oil	1.5 gals	1-gallon, metal	Combustible	N/A	No	
Marine Penetrol	2 gals	1-gallon, metal	Combustible	D001	No	
Paint Remover (Methylene Chloride)	5 gals	1-gallon, metal	ORM-A	U080	No	
OSPHO (Phosphoric Acid)	17 gals	1&5-gallon, plastic	Corrosive	D002	No	
Roof Cement	20 gals	5-gallon, metal	Combustible	D001	No	
Pine Tar	55 gals	55-gallon	Combustible	D001	No	
Molybdenum Sulfide	1 lb	1-pound	ORM-E	N/A	No	
Wire Dressing	5 gals	5-gallon	Combustible	D001	No	
Hydraulic Fluid	6 gals	5-gallon	ORM-E	N/A	No	
Cupernol, Green Death	5 gals	5-gallon	Poison B	N/A	No	
Cupernol, Green Death	55 gals	55-gallon	Poison B	N/A	No	
Lubricant	55 gals	55-gallon	Combustible	N/A	No	
Ground Line Grease (Pentachlorophenol)	5 gals	5-gallon	Poison B	F027	No	
Gasoline	55 gals	55-gallon	Flammable	D001	No	
Roof Coating, Asbestos	10 gals	5-gallon	Combustible	D001	No	
Lube Oil	5 gals	5-gallon	Combustible	N/A	No	

### HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: PUMP HOUSE

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS BLDG
Rubber Cement	1 qt	1-quart	Flammable	D001	No
Tompson Water Seal	1 gal	1-gallon	Flammable	D001	No
Used Fuel Oil	5 gals	5-gallon	Combustible	D001	No
Used Linseed Oil	5 gals	5-gallon	Combustible	N/A	No
Unknown (unlabeled)	1 gal	1-gallon	-	-	No
Unknown (unlabeled)	5 gals	5-gallon	*	-	No
Unknown (unlabeled)	110 gals	55-gallon	-	-	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: HASLETT WAREHOUSE

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
FIRST BAY					
Paint	10 gals	5-gallon can	Combustible	D001	No
Oxygen	4 cylinders		Nonflammable	N/A	No
SECOND BAY					
Lubricant	3 gals	5-gallon can	Combustible	N/A	No
Paint	5 gals	5-gallon can	Combustible	D001	No
THIRD BAY					
Davlin Acrylistic Asphalt 900	25 gals	1-gallon metal container	Flammable	D001	No
UCAR Phenolic Resin	Undeter- mined	80-gallon drum	n ORM-E	N/A	No
Asphalt Emulsion	165 gals	55-gallon meta drum	al Combustible	N/A	No
Reflective Roof and Masonry Coating	70 gais	5-gallon plastic bucket	Combustible	N/A	No
Arabol Lagging Adhesive	15 gals	5-gallon plastic bucket	Combustible	N/A	No
Marine Glue	500 gals	5-gallon metal bucket	Combustible	N/A	No
Plastic Roof Cement	65 gals	5-gallon metal bucket	Combustible	D001	No
RESTROOM AREA:					
Chlorine Bleach Scouring Powder	100 lbs	21-ounce bottl	le ORM-C	N/A	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: HASLETT WAREHOUSE

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
Glass Cleaner	4 gals	1-gallon bottle	Flammable	D001	No
Pine Oil	120 gals	1-gallon can	Combustible	N/A	No
Wax, General Purpose	4 lbs	4-pound container	Combustible	N/A	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: MARITIME MUSEUM BASEMENT

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS	BLDG
PHOTO LAB				ü.		
HC-110 Developer	19 gals	16-32-ounce plastic bottle	N/A	N/A	No	
Dektol Developer	48 lbs	16-32-ounce plastic bottle	N/A	N/A	No	
T-Max Developer	2 gals	16-32-ounce plastic bottle	N/A	N/A	No	
Rapid Fixer	10 gals	16-32-ounce plastic bottle	N/A	N/A	No	
Hypo Cleaning Agent	22 lbs	16-32-ounce plastic bottle	N/A	N/A	. No	
Universal Fixer	2 gals	16-32-ounce plastic bottle	N/A	N/A	No	
Rapid Selenium Toner	2 gals	16-32-ounce plastic bottle	Poison	D010	No	
HC-110 Dev. Replenisher	2 gals	16-32-ounce plastic bottle	N/A	N/A	No	
D-76 Developer	10 lbs	16-32-ounce plastic bottle	N/A	N/A	No	
Royal Print Activator	4 gals	16-32-ounce plastic bottle	N/A	N/A	No	
Royal Print Fixer/ Replenisher	10 gals	16-32-ounce plastic bottle	N/A	N/A	No	
Asst. Color Chemistry	50 gals	16-32-ounce plastic bottle	N/A	N/A	No	
Selenium Toner	2 gals	32-ounce glass bottle	Poison	D010	No	
Cellulose Nitrate Film		9 household refrigerators	Flammable	D001	No	

### HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: MARITIME MUSEUM BASEMENT

PRODUCT NAME	QUANTITY	CONTAINER H	IAZARD CLASS	EPA WASTE CODE	MSDS BLDG
EXHIBIT AREA					
Paint, Oil-based	13 gals	1-pint & 1-gallon	Flammable	D001	No
Paint, Oil-based	6 qts	1-quart, metal	Combustible	D001	No
Paint, Water-based	40 gals	1-quart & 1-gallon, metal	ORM-E	N/A	Yes
Paint, Spray	332 oz	12-ounce can	Flammable	D001	No
WD-40, Spray	1 qt	1-quart can	Flammable	D001	No
Rubber Cement Spray	15 qts	1-quart can	Flammable	D001	No
Contact Cement	1 gal	1-gallon, metal	Flammable	D001	No
Lacquer Thinner	1 gal	1-gallon, metal	Flammable	D001	No
Rubber Cement Solvent	2 gals	1-gallon, metal	Flammable	D001	No
Linseed Oil	1 gal	1-gallon, metal	ORM-E	D001	No
Thinner	7 gals	1-gallon, metal	Flammable	D001	No
Thompsons Waterseal	1 gal	1-gallon, plastic	Flammable	D001	No
Alcohol	1 gal	1-gallon, plastic	Flammable	D001	No
Rubber Cement	2 gal	1-gallon, metal	Flammable	D001	No
Oil Finish	2 qt	1-quart, metal	Combustible	N/A	No
Thinner & Cleaner	1 pt	1-pint, metal	Flammable	D001	No
Xylol	2 gals	1-gallon, metal	Flammable	U239	No
Butyl Alcohol	1 pt	1-pint, glass	Flammable	U031	No
Wood Finish	2 qts	1-quart, metal	Flammable	D001	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

### LOCATION: MARITIME MUSEUM BASEMENT

PRODUCT NAME	QUANTITY	CONTAINER H	AZARD CLASS	EPA WASTE CODE	MSDS BLDG
Mask-off	1 qt	1-quart, metal	N/A	N/A	No
Toluene	1 qt	1-quart, glass	Flammable	U220	No
Metal Etch	1 pt	1-pint, plastic	Corrosive	D001	No
Spar Varnish	1 pt	1-pint, metal	Flammable	D001	No
Spray Coating	1 pt	1-pint can	Flammable	D001	No
Japan Dryer	1 pt	1-pint, metal	Flammable	D001	No
Linseed Oil	2 qt	1-quart, plastic	Combustible	N/A	No
Stockholm Tar	1 qt	1-quart, plastic	Flammable	D001	No
Polyurethane Varnish	1 gal	1-gallon, plastic	Combustible	D001	No
Tinting Colors	1 qt	1-quart, plastic	N/A	N/A	No
Paste Wood Filler	1 qt	1-quart, plastic	Flammable	D001	No
Wood Sealer	1 qt	1-quart, plastic	Flammable	D001	No
Stain & Wood Preservative	2 qt	1-quart, plastic	Corrosive	D002	No
Spirits of Turpentine	1 gal	1-gallon, metal	Flammable	D001	No
Clear Varnish	1 qt	1-quart, metal	Flammable	D001	No
Propane Fuel	3 qts	1-quart, metal	Flammable	D001	No
Methyl Acetylene	2 qts	1-quart, metal	Flammable	D001	No
Ink, Water-based	12 gals	1-gallon, plastic	ORM-E	N/A	Yes
OSPHO (Phosphoric Acid)	1 gal	1-gallon, plastic	Corrosive	D002	No
Coroseal	1 gal	1-gallon, plastic	N/A	N/A	No
Cleaner, Spray	5 gal	1-gallon, metal	N/A	N/A	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

### LOCATION: MARITIME MUSEUM BASEMENT

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS BLDG
Brass Polish	1 qt	1-quart, metal	Flammable	D001	No
Paint	6 gals	1-gallon, metal	Combustible	D001	No
Boiled Linseed Oil	1 gal	1-gallon can	Combustible	N/A	No
Contact Adhesive	1 gal	1-gallon, metal	Flammable	D001	No
Prostat Transfer Chemistry, Photo- graphic Processing Chemicals	5 gals	Plastic bottles in cardboard	Corrosive	D002	No
Unidentified Pyrotechnic Powder (Marine Flares)	App 10 lbs		Flammable	D001	No
BOILER ROOM					
Rust Inhibitor	2 gals	1-quart plastic bottle	Corrosive	D002	No
Water Treatment Chemical	5 gals	5-gallon can	ORM-E	N/A	No
Water Treatment Chemical	40 gals	40-gallon drum	ORM-E	N/A	No

## UNDER BLEACHERS

5-gallon container with dry latex base paint.

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
LAMP LOCKER:		. ,			
Paint Thinner	9 pts	1 pt cans	Flammable	D001	No
Grease Petroleum	10 gals	5 gal cans	ORM-E	N/A	No
Oil	5 gals	5 gal can	Combustible	N/A	No
Unknown	1 gal	1 gal can	-	-	No
DECK GEAR LOCKER:					
Grease	7 gals	2 5 gal cans	ORM-E	N/A	No
Penetrating Oil	1 pt	1 pt can	Combustible	N/A	No
ENGINE ROOM:					
Solvent	N/A	12 cu ft tank	Flammable	D001	No
Diesel Oil	N/A	12 cu ft tank	Combustible	D001	No
Cylinder Oil	N/A	12 cu ft tank	Combustible	N/A	No
Turbine Oil	N/A	12 cu ft tank	Combustible	N/A	No
Lubricating Oil	N/A	20 cu ft tank	Combustible	N/A	No
Diesel Oil	N/A	50 cu ft tank	Combustible	D001	No
Motor Oil	1 gal	I quart & 16 ounce cans	Combustible	D001	No
Water, Sewage and Miscellaneous Liquid Waste	App 10,000 gals	20,000 gallon holding tank	ORM-E	N/A	No
ENGINE ROOM, TOOL	ROOM:				
Jasco Paint Remover	1 gal	1 gal can	ORM-A	N/A	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
Paint Thinner	2 gals	1 gal can	Flammable	D001	No
Xylene	1 gal	1 gal can	Flammable	U239	No
1-1-1, Trichoroethane	1 gal	1 gal bottle	ORM-E	U226	No
Paint, Aerosol	420 oz	11-16 oz cans	Flammable	D001	No
ENGINE ROOM, PORT	BOILER:				
Paint Thinner	50 gals	5 gal pails	Flammable	D001	No
Paint, Oil-base	20 gals	5 gal pails	Flammable	D001	No
Alkaline Boiler Treatment	15 gals	5 gal pails	Corrosive	D002	No
HOLD #4					
Epoxy Paint	400 gals	1 gal cans	Flammable	D001	No
Paint, Oil Base	175 gals	5 gal cans	Flammable	D001	No
Paint Thinner	175 gals	5 gal cans	Flammable	D001	No
Oil, Petroleum	200 gals	5 gal cans	Combustible	N/A	No
Oil, Petroleum	2,200 gals	55 gal drums	Combustible	N/A	No
Freon Cylinder Gas	1 small cyl		Nonflammable Gas	N/A	No
Carbon Dioxide Gas	45 large cyls	S	Nonflammable Gas	N/A	No
Boiler Compound	550 lbs	50 lb fiber pack	s ORM-E	N/A	No
HOLD #5, MACHINE	SHOP:				
Oil, Petroleum	50 gals	1-5 gal cans	Combustible	N/A	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER H	AZARD CLASS	EPA WASTE CODE	MSDS
Epoxy Putty	10 qts	1 qt cans	Combustible	N/A	No
Paint, Oil-base	1 gal	1 gal can	Flammable	D001	No
Paint Thinner	10 gals	1 and 5 gal cans	Flammable	D001	No
Oil	7 qts	1 qt cans	Combustible	N/A	No
Oil Based Paint, Aerosol	16 oz cans	45 cans	Flammable	D001	No
Grease, Petroleum	10 qts	1 qt cans	ORM-E	N/A	No
MIDSHIP HOUSE FORWARD GUNNER'S	S ROOM:				
Windshield sealer	32 oz	16 ounce plastic bottle	Combustible	N/A	No
Motor oil	l qt	l-quart can	Combustible	N/A	No
Rust Protective Coating		12-ounce can	Flammable	D001	No
WD40		30-ounce can	Flammable	D001	No ·
Metal protection liquid	9 oz	9-ounce aerosol can	Flammable	D001	No
SuperFlake Graphite	1 lb	l-pound can	ORM-E	N/A	No
Synthetic Gear Oil	1 qt	1-quart container	Combustible	N/A	No
Drain Opener	48 oz	32-ounce can	Corrosive	D002	No
Surface disinfectant deodorant, contains 53% (alcohol),	16 oz	16-ounce aerosol can	Flammable	D001	No
Mildew Stain Remova	l 16 oz	16-ounce aerosol can	Corrosive	D002	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

		,			
PRODUCT NAME	QUANTITY	CONTAINER I	HAZARD CLASS	EPA WASTE CODE	MSDS
Motor Oil	32 oz	32-ounce can	Combustible	N/A	No
Lubricating Oil	1 qt	1-quart can	Combustible	N/A	No
Contact Cement	1 pt	1-pint can	Flammable	D001	No
Cleaning Compound, Solvent	6 oz	12 ounce aerosol can	Nonflammable	N/A	No
Never-Cease Lubricatin Compound	ng 1 lb	1-pound can contains alum- inum powder, copper powder and zinc oxide	ORM-E		No
Unknown	1 gal	plastic container	٠.	-	No
Denatured Alcohol, Solvent	4 gals	1-gallon can	Flammable	D001	No
Liquid Bleach, contain Sodium Hypochlorite		32-ounce can	Oxidizer	D001	No
Acrylic Finish	About 1/2 gal	1-gallon can	Combustible	D001	No
Liquid Ammonia	10 oz	32-ounce can	Corrosive	D002	No
Acid	1 gal	1-gallon can	Corrosive	D002	No
Motor Oil	2 gals	2-gallon can	Combustible	N/A	No
Degreasing Cleaner, Nonflammable Liquid	1/2 gal	1-gallon can	ORM-A	N/A	No
All-Purpose Detergent	2 gals	5-gallon can	ORM-E	N/A	No
Waterseal	1 gal	1.2-gallon can	Combustible	D001	No
White Lead	2 lbs	2-pound can	Combustible	D001,D008	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
Wood Bleach, Oxalic Acid, Technical	20 lbs	5-pound container	Corrosive	D002	No
Ivy Spray Sealer		12-ounce aerosol can	Flammable	D001	No
Sealer	1 pt	1-gallon can	Flammable	D001	No
Detergent, Ammonia	10 oz	56-ounce can	Corrosive	D002	No
Chevron Grease	1 lb	8-pound can	ORM-E	N/A	No
Rust Dissolver (Phosphoric Acid)	1/2 gal	1-gallon can	Corrosive	D002	No
Unlabeled Material	20 oz	32-ounce plastic bottle	-	-	No
Unlabeled Material	20 oz	32 oz plastic bottle	-	-	No
Acid	1 qt	1 gal can	Corrosive	D002	No
STORAGE ROOM:					
409 Cleaner	440 oz	12-ounce bottle	ORM-E	N/A	No
Ammonia	480 oz	32-ounce bottle	Corrosive	D002	No
Bleach	App 460 oz	32-ounce bottle	ORM-C	N/A	No
Acme Chlorinated Lime (Bleach)	60 oz	6-ounce jar	ORM-C	N/A	No
File Cleaner, Tilo Brand	App 205 oz	16-ounce bottle	N/A	N/A	No
TopChlor 2	App 9 gals	1-gallon jug	ORM-C	N/A	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
PineSol Fresh Pine Cleaner and Deodorizer	App 6 gals	1-gallon jug	Combustible	N/A	No
FIVE INCH AMMO RO	OM:				
Oil Base Paint	16 pts 17 qts 230 gals 68 gals	1-pint can 1-quart can 5-gallon can 1-gallon can	Flammable	D001	No
Primer	65 gals	5-gallon can	Flammable	D001	No
Thinner	150 gals 12 gals	5-gallon can 1-gallon can	Flammable	D001	No
Oil Base Paint	410 oz	29-ounce can	Flammable	D001	No
Enamel	70 gals	5-gallon can	Flammable	D001	No
Detergent	5 gals	5-gallon can	ORM-E	N/A	No
Console Oil	11 gals	5-gallon can	Combustible	N/A	No
Conditioning Solution	5 gals	5-gallon can	N/A	N/A	No .
Oil Spill Cleaner	5 gals	5-gallon jerry can	N/A	N/A	No
STEERING ENGINE R	OOM:				
Unlabeled		55 gal drum		-	No
Motor Oil	10 gals	5-gallon can	Combustible	N/A	No
Teles 10	5 gals	5-gallon can	N/A	N/A	No
Lubricant	5 gals	5-gallon can	Combustible	N/A	No
Electricleaner	5 gals	5-gallon can	Combustible	N/A	No

## HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
Neropa	5 gals	5-gallon can	N/A	N/A	No
Solvent	1 gal	1-gallon can	Flammable	D001	No
Unlabeled	15 gals	5-gallon drum	•	-	No
Unlabeled	1 gal	1-gallon can	•	•	No
Detergent	5 gals	5-gallon can	ORM-E	N/A	No
Rimula	5 gals	5-gallon can	N/A	N/A	No
Unlabeled	1 qt	1-gallon pitcher	-	-	No
Grease	5 gals	5-gallon can	ORM-E	N/A	No
Red Lead	5 gals	5-gallon can	Combustible	D001,D008	No
BULK PAINT LOCKER					
Solvent-based Paint	6,000 gals	5-gallon metal bucket	Combustible	D001	No
Solvent-based Paint	120 gal	1-gallon buckets in cardboard bo on shelves		D001	No
PAINT LOCKER ON T		MAST:			
Solvent-based Paint	45 gals	5&1 gallon metal buckets	Combustible	D001	No
Paint	120 fluid oz	12-ounce aerosol cans	Flammable	D001	No
Paint Thinner	10 gals	1-gallon metal can	Flammable	D001	No
Gasoline	2 gals	2-gallon can	Flammable	D001	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
Paint & Varnish Remover	2 gals	1-gal metàl can	Flammable	D001	No
Recycled Paint Thinner	1 gal	1-gallon plastic bottle	Flammable	D001	No
Paint Residue	8 gals	1-gallon bucket	Combustible	N/A	No
SHAFT GALLERY:					
Paint	20 gals	5&1 gallon metal buckets	Combustible	D001	No
Paint Thinner	5 gals	5-gal bucket	Flammable	D001	No
Lacquer Thinner	1 gal	1-gal bucket	Flammable	D001	No
Unidentified Liquid	3 gals	5-gallon metal bucket	-	-	No
Biobor	4 gals	6-gallon metal bucket	Combustible	D001	No
MAIN DECK:					
Compressed Gas Cyli	nders:				
Acetylene	Quantity undetermine	3 cylinders ed	Flammable Gas	D001	No
Oxygen	Quantity undetermine	3 cylinders ed	Nonflammable	e N/A	No
DOUBLE HULL TANK	<u>.s</u> :				
Fuel Oil	App 4000 barrels	Stored in the double-bottom	Combustible hull	D001	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS
PIER 3, EAST EXTERIO	<u>OR</u>	* 4			
Unlabeled	770 gals	55-gallon drum	-	-	No
Unlabeled	25 gals	5-gallon bucket	-	-	No
Empty Containers	40	5-gallon can	-	-	No
Empty Cans w/Dry Paint	7	5-gallon can	-	-	No
Waste Paint Thinner	25 gals	5-gallon can	Combustible	D001	No

### HAZARDOUS MATERIAL/WASTE INVENTORY

QUANTITY CONTAINER HAZARD CLASS EPA WASTE MSDS BLDG

LOCATION: FORT MASON, BUILDING E

PRODUCT NAME

		SIZE/TYPE		CODE		
FIRST FLOOR						
CONSERVATION LAB						
Chloroform	1 pt	1 pint, glass	ORM-A	U044	No	E
Thymol	0.25 lb	0.25 pound plastic	Combustible	D001	No	E
Methyl Ethyl Ketone	1 pt	1 pint, glass	Flammable	U159	No	Е
N,N-Dimethyl- Formanide	1 pt	1 pint, glass	Combustible	D001	No	Е
Ammonium Hydroxide	1 pt	1 pint, glass	Corrosive	D002	No	Е
Petroleum Distillates	1 pt	1 pint, glass	Flammable	D001	No	Е
Ammonia	4 oz	4-ounce glass	Corrosive	D002	No	E
WEIT'O Deacidi- fication Spray	22 oz	22-ounce, alum	Corrosive	D002	No	Е
Xylene/Tolune/ Ketones Spray	1 qt	1-quart, alum	Flammable	D001,U159 U220,U239	No	Е
Black Flag Ant & Roach Spray	12 oz	12-ounce, alum	Poison B	N/A	No	Е
Black Flag Flying Insect Spray	12 oz	12-ounce, alum	Poison B	N/A	No	Е
WD-40 Lubricant Spray	9 oz	9-ounce, alum	Flammable	D001	No	Е
Acetic Acid, Glacial	500 ml	500 ml, glass	Corrosive	D002	No	Е
Zoecon Insect Strips	2.8 oz	2.8-ounce, paper	Poison B	N/A	No	Ε
Xylene	1 gal	1-gallon, glass	Flammable	U239	No	Е
Petroleum Distillates	1 gal	1-gallon, metal	Flammable	D001	No	Е

## HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: FORT MASON, BUILDING E

PRODUCT NAME	QUANTITY	CONTAINER H	AZARD CLASS	EPA WASTE CODE	MSDS	BLDG
Turpentine	16 oz	16-ounce, metal	Flammable	D001	No	Ε
Microcrystalline Wax	16 oz	16-ounce, metal	Combustible	N/A	No	Е
Acetone	1 gal	1-gallon, metal	Flammable	U118	No	Ε
Conservation Material Acryloid B-72	1 gal	1-gallon, metal	Flammable	D001	No	Е
Conservation Material Incralac	1 gal	1-gallon, metal	Flammable	D001	No	Е
Paint Thinner	1 gal	1-gallon, metal	Flammable	D001	No	Е
Toluene	1 pt	1-pint, glass	Flammable	U220	No	Е
Toluene	1 gal	1-gallon, metal	Flammable	U220	No	Е
Laquer Thinner	1 pt	1-pint, metal	Flammable	D001	No	Е
Heptane	1 qt	1 qt, glass	Flammable	D001	No	Е
Petroleum Distillates	0.5 gal	0.5-gallon, plastic	Flammable	D001	No	Ε
Methyl Alcohol	12 oz	12-ounce, plastic	Flammable	U154	No	E
Paint Remover	1 gal	1-gallon, metal	Flammable	D001	No	Е
Magnesium Carbonate	1 lb	1-pound, plastic	ORM-E	N/A	No	E
Ethyl Alcohol	16 oz	16-ounce, plastic	Flammable	D001	No	Ε
Denatured Alcohol	32 oz	32-ounce, plastic	Flammable	D001	No	E
Denatured Alcohol	2 gals	1-gallon, plastic	Flammable	D001	No	Ε
Sodium Carbonate	88 lbs	11-pound, plastic	ORM-E	N/A	No	Е
EDTA Disodium Salt	1 lb	1-pound, plastic	ORM-E	N/A	No	Е
Unknown (unlabeled)	1 qt	1-quart, metal	ORM-E	N/A	No	Е

# HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: FORT MASON, BUILDING E

PRODUCT NAME	QUANTITY	CONTAINER H	HAZARD CLASS	EPA WASTE CODE	MSDS	BLDG
Echuloze 400	500 grams	500-gram can	N/A	N/A	No	Е
CM-1 Granular Type Glue	1 lb	1-pound can	ORM-E	N/A	No	Е
Sodium Metaphosphate	500 grams	500-gram can	ORM-E	N/A	No	E
CLOSETS STORAGE	AREA:					
Formalin	2 gals	1-gallon can	ORM-A	N/A	No	Е
Isopropyl Alcohol	10 oz	16-ounce can	Flammable	D001	No	Е
Dust Control Spray	30 oz	15-ounce aeroso can	l Flammable	D001	No	Е
Dusting & Cleaning Spray	10 oz	10-ounce aeroso can	l Flammable	D001	No	Е
Dust Removal Spray	64 oz	32-ounce aeroso can	ol ORM-E	N/A	No	Ε
Acrylic Copolymer in Acetone	120 milli- liters	13 milliliter bottles	Flammable	D001	No	Е
SECOND FLOOR						
SUPPLY ROOM:						
Denatured Alcohol	20 oz	32-ounce bottle	Flammable	D001	No	Е
Deodorant, General Purpose	16 oz	16-ounce aeroso can	ORM-E	N/A	No	Е
Aerosol Paint	12 oz	12-ounce aeroso can	ol Flammable	D001	No	Е
Desk and Office Cleaner	15 oz	15-ounce aeroso	ol ORM-E	N/A	No	E

# HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: FORT MASON, BUILDING E

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS	BLDG
THIRD FLOOR						
LABORATORY SITE M PAINT STORAGE ARE		*				9
Spackling Paste	1 qt	1-quart can	ORM-E	N/A	No	Е
Water-based Acrylic	12 oz	12-ounce aerosol can	ORM-E	N/A	No	Е
Acrylic Latex Gloss Enamel	32 oz	32-ounce can	ORM-E	N/A	No	E
Semi-gloss Latex Enamel	124 oz	124-ounce can	ORM-E	N/A	No	E
Acrylic Paint	248 oz	124-ounce can	Combustible	D001	No	E
Latex Paint	5 gals	5-gallon can	ORM-E	N/A	No	Е
XEROX MACHINE AREA:						
Xerox Toner	20 oz	10-ounce can	ORM-E	N/A	No	E
Silicone Oil	192 oz	16-ounce can	ORM-E	N/A	No	Е
CLEANING SUPPLY ROOM:						
Cleaning Supplies Type 1 Cleaner	168 oz	21-ounce container	ORM-C	N/A	No	E
Soil & Spot Remover	17 oz	17-ounce container	ORM-E	N/A	No	Е
Carpet Cleaner	18 oz	18-ounce aerosol can	ORM-E	N/A	No	Е
Grease Gum	16 oz	16-ounce aerosol can	ORM-E	N/A	No	Е

# HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: FORT MASON, BUILDING E

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS	BLDG
Upholstery Cleaner	140 oz	14-ounce aerosol can	ORM-E	N/A	No	Е
Glass Cleaner	1-1/2 gals	1-gallon container	Flammable	D001	No	Е
Sodium Hypochlorite Solution (Liquid Bleach)	1 gal	1-gallon container	Oxidizer	D001	No	E
PHOTO VAULT:						
Cellulose Nitrate Films	400 films	envelope	Flammable	D001	. No	Е
Cellulose Diacetate Films	25 films	envelope	Flammable	D001	No	E
NEW XEROX MACHI	NE AREA:					
Xerox Developer	5 lbs	1-pound can	ORM-E	N/A	No	Е
Xerox Dry Ink Plus Cartridge	1.5 lbs		ORM-E	N/A	No	Е
BOOK BINDERY AREA:						
Liquid Plastic Adhesive	1 gal	1-gallon can	Combustible	N/A	No	Е
Clear Plastic Spray (contains Chloro- fluorocarbon)	16 oz	16-ounce aerosol can	Nonflammable	N/A	No	Е

# HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: PIER 1, FORT MASON

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS	BLDG
Epoxy Reducer	1 gal	1 gal can	Flammable	D001	No	317
Spackling Paste	1 pt 1 gal	1 pt can 1 gal bucket	ORM-E	N/A	No	317
Acetone	3 gals	1 gal can	Flammable	D001	No	317
Contact Cement	1 gal Also 1 pint o	1 gal can an	Flammable	D001	No	317
Aerosol Penetrating Oil	13 oz	13 oz can	Combustible	D001	No	317
Epoxy Lube	12 oz	12 oz bottle	Combustible	N/A	No	317
Shellac	2 qts 1/2 gal	1 qt bottle 1 gal can	Flammable	D001	No	317
Toluol	1 gal	1 gal can	Flammable	U220	No	317
Tinting Color	36 oz	12 oz bottle	N/A	N/A	No	317
WD-40	1 gal	1 gal can	Flammable	D001	No	317
Unknown	40 gals	10 gal fiberpacks	-	-	No	317
Trisodium Phosphate, uncovered cans	16 oz	8 oz can	ORM-E	N/A	No	317
Oil	5 qts	1 qt can	Combustible	N/A	No	317
Synthetic Net Dip	5 gals	5 gal can	N/A	N/A	No	317
Epoxy Thinner	3 gals	1 gal can	Flammable	D001	No	317

# HAZARDOUS MATERIAL/WASTE INVENTORY

LOCATION: PIER 1, FORT MASON

PRODUCT NAME	QUANTITY	CONTAINER SIZE/TYPE	HAZARD CLASS	EPA WASTE CODE	MSDS	BLDG
STORAGE SHED #2 (	OUTSIDE ON	PIER):				
Epoxy Coating	16 gals cans 8 qts	approx. 1 gallon 1 qt can	Flammable	D001	No	317
Epoxy Paint	8 gals	1 gal can	Flammable	D001	No	317
Oil-Base Paint	30 gals 6 gals	5 gal can 1 gal can	Flammable	D001	No	317
Paint Thinner	6 gals 15 gals	1 gal can 5 gal can	Flammable	D001	No	317
Unknown	1 gal	1 gal can			No	317
DDT	1 gal	1 gal can	ORM-A	U061	No	317

#### I. PHYSICAL INVENTORY: (Continued)

#### B. <u>Hazardous Wastes Awaiting Disposal.</u>

Hyde Street Pier - Tam Halaj, Foreman.

Steam Ship "Eppleton Hall".

1. Bunker C fuel oil, somewhat more than 300 gallons. Fuel should be sampled and tested for the presence of contamination which would classify it as a hazardous waste when burned. If it is found to be so contaminated, SFMNHP should arrange with a permitted contractor to pump the fuel from the tanks. The permitted contractor should transport all contaminated fuel to an approved facility for disposal. If the fuel is not contaminated it could be transferred to the Jeremiah O'Brien for boiler fuel.

Estimated cost for disposal: \$1750

San Francisco Bay Ferry "Eureka".

1. "Unknown" liquid, (possibly bilge water) - approximately 30-50 gal. Waste requires hazard determination per 40 CFR 262.11 before disposal. We assume that the material can be identified and labeled by knowledgeable individuals at the park. SFMNHP should arrange with a permitted contractor for packaging and transportation to an approved disposal facility.

Estimated cost: \$500

2. Bunker C fuel oil, somewhat less than 300 gallons. Fuel should be sampled and tested for the presence of contamination which would classify it as a hazardous material when burned. If it is found to be so contaminated, SFMNHP should arrange with a permitted contractor to pump the fuel from the tanks. The permitted contractor should transport all contaminated fuel to an approved facility for disposal. If the fuel is not contaminated it could be transferred to the Jeremiah O'Brien for boiler fuel.

Estimated cost for disposal: \$1750

Steel Hull Ship "Balclutha".

1. "Unknown" liquid, (possibly bilge water) - approximately 30 gal. Waste requires hazard determination per 40 CFR 262.11 before disposal. We assume that the material can be identified and labeled by knowledgeable individuals at the park. SFMNHP should arrange with a permitted contractor for packaging and transportation to an approved disposal facility.

Estimated cost for disposal: \$500

Bookstore West Side Exterior.

1. Waste flammable and combustible solvents and solvent based paints - Approximately 5 gallons. SFMNHP should arrange with a permitted contractor for packaging and transportation to an approved disposal facility.

Estimated cost: Included with Pump House.

2. Aerosol cans and partially empty paint containers - six containers. SFMNHP should arrange with a permitted contractor for packaging and transportation of to an approved disposal facility.

Estimated cost: Included with Pump House.

Hyde Street Pier - Small Boat Shop - Bill Doll, Foreman.

1. Waste flammable and combustible solvents and solvent based paints, and coatings - approximately 50 gallons. SFMNHP should arrange with a permitted contractor for packaging and transportation to an approved disposal facility.

Estimated cost: Included with Pump House.

2. Aerosol cans and partially empty paint containers - approximately 30 containers. SFMNHP should arrange with a permitted contractor for packaging and transportation of to an approved disposal facility.

Estimated cost: Included with Pump House.

Pump House - Ed Redford, Foreman.

1. Solvent based paints and coatings, waste solvents. Some undetermined portion of these materials contains lead. Accumulated wastes of approximately 250 gallons. Wastes are stored in unlabeled drums at the Pump House and smaller containers in other areas of Hyde Street Pier awaiting transportation to the Pump House. SFMNHP should arrange with a permitted contractor for transportation to an approved disposal facility.

Estimated cost: \$2500

(includes Book Store and Small Boat Shop)

2. Aerosol containers and partially empty solvent and paint containers. Approximately 100 partly empty containers ranging in size from 12 oz. to 5 gal. Containers are currently stored in the Pump House. SFMNHP should arrange with a permitted contractor for the packaging and transportation to an approved disposal facility.

Estimated cost: \$3000

(includes Book Store and Small Boat Shop)

3. Unidentified or "unknown" materials. Approximately 50-100 gallons in 1 to 55 gallon metal containers. Waste requires hazard determination per 40 CFR 262.11 before disposal. SFMNHP should arrange with a permitted contractor for identification, packaging and transportation to an approved disposal facility.

Estimated cost \$2000. Assumes that majority of materials can be identified and labeled by knowledgeable individuals at the park.

4. Pentachlorophenol in wood preservative and ground line grease. Approximately 16 gallons in 1 and 5 gallon metal containers stored in the Pump House have been identified. It is possible, however, that materials containing pentachlorophenol are present in the Pump House and in other locations at SFMNHP. This material is currently without a disposal technology and will continue to be managed by the park. SFMNHP should identify all pentachlorophenol and arrange with a permitted contractor to transfer the material to a single consolidated container which will be properly labeled and stored in a location complying with UFC Article 80 and CRC Title 22.

Maritime Museum - Photo Shop - Steve Danford, Foreman.

1. Selenium toning solution. The photo lab is currently "managing" approximately 2 gallons of selenium print toning solution. SFMNHP should arrange with a permitted contractor for transportation of this material to an approved disposal facility.

Estimated cost: \$750

<u>Liberty Ship "Jeremiah O'Brien</u> - Bob Burnett, Foreman. (Includes east exterior of Pier 3)

1. Approximately 100 gallons accumulated waste paint thinners on Pier 3. SFMNHP should arrange with a permitted contractor for transportation to an approved disposal facility.

Estimated cost: \$750

2. Waste crankcase oil and other unidentified hydrocarbon wastes. Approximately 100 gallons accumulated on Pier 3. SFMNHP should arrange with a permitted contractor for transportation to an approved disposal facility.

Estimated cost: \$750

3. Bilge water. Approximately 10,000 gallons accumulated mixed waste water and bilge water stored in 20,000 gallon tank. SFMNHP should arrange with a permitted contractor for transportation to an approved disposal facility. Since the cost of disposing this material is very high the volume estimate by Bob Burnett should be verified.

Estimated cost: \$3.85/gal = \$38,500

4. The approximately 4000 barrels of fuel currently on board should be sampled and tested for the presence of contamination which would classify it as a hazardous material when burned. If it is found to be so contaminated, SFMNHP should arrange with a permitted contractor to pump the fuel from the tanks. Methods for cleaning empty tank requires further investigation. The permittedcontractor should transport all contaminated fuel to an approved facility for disposal.

Estimated cost for sampling and testing only: \$1500

<u>Pier One - Shipwright Shop</u> - Mr. Oaks, Foreman. (Includes storage sheds east of building)

1. Insecticide "Black Flag" containing 5% DDT. No current disposal technology exists. The park should develop a program for the proper management of this material on site. Storing the material on the pier is <u>not</u> acceptable due to the possibility of the material being spilled into the bay. This material could be safely stored with the pentachlorophenol.

#### II. WASTE STREAM:

- A. <u>Annual Quantity, Methodology and Rational.</u>
- B. Cost Estimates.

Hyde Street Pier - Tam Halaj, Foreman.

- Solvent based paints and coatings, waste solvents.
  - A. Approximately 150 gallons per year. Wastes are currently accumulated at the Pump House. Wastes should be accumulated for no more than 90 days after a drum is filled and stored at a facility complying with requirements of Uniform Fire Codes Article 79 and Article 80 and San Francisco Health Code. Arrange with permitted contractor for transportation to approved disposal facility.
  - B. Estimated cost \$300 per drum = \$900 per year.
- Bilge water.
  - A. 750 gallons per year (as estimated by Michael Delano). Wastes are currently accumulated aboard vessels. This is an acceptable practice. Wastes should be accumulated no more than 90 days after a drum is filled. Arrange with permitted contractor for transportation to approved disposal facility.
  - B. Estimated cost \$400 per drum = \$6000 per year.
- Aerosol cans and partially empty solvent and paint containers.
  - A. Quantity unknown, approximately 2 drums/year. Containers are currently disposed as general trash. This is acceptable for <u>completely</u> empty paint and solvent containers only. Empty aerosol cans and partially empty paint and solvent containers should be stored in a location complying with the requirements of the Uniform Fire Code Article 79 and Article 80 and San Francisco Health Code. Arrange with permitted contractor for packaging and transportation to approved disposal facility.
  - B. Estimated cost \$3000 per year.

#### Hyde Street Pier - Small Boat Shop - Bill Doll, Foreman.

- Solvent based paints and coatings, waste solvents.
  - A. Quantities generated are included with Hyde Street Pier. Wastes are currently accumulated at an area west of the boat shop. Paint thinner and similar volatile organic solvents are maintained in open containers and allowed to evaporate. This is an unacceptable method of disposal. Wastes should be collected at a facility complying with requirements of Uniform Fire Codes Article 79 and Article 80 and the San Francisco Health Code. Arrange with permitted contractor for transportation to approved disposal facility.
  - B. Estimated cost of disposal included with the Hyde Street Pier.
- 2. Aerosol containers and partially empty solvent and paint containers.
  - A. Quantity unknown included in estimated quantity for Hyde Street Pier. Containers are currently disposed of as general trash. This is acceptable for completely empty paint and solvent containers only. Empty aerosol cans and partially empty paint and solvent containers should be stored in a location complying with the requirements of Uniform Fire Code Article 79 and Article 80 and San Francisco Health Code. Arrange with permitted contractor for packaging and transportation to approved disposal facility.
  - B. Estimated cost of disposal included with the Hyde Street Pier.

#### Pump House - Ed Redford, Manager.

The Pump House is not an independent "generator" of hazardous waste. It currently functions as a materials distributions center and a receiving station for wastes generated on Hyde Street Pier and elsewhere at SFMNHP.

#### Maritime Museum - Photo Lab - Steve Danford, Foreman.

- Spent photographic fixer solution containing silver ions.
  - A. Approximately 50 gallons per year. Solution is currently being disposed of to the City sanitary waste. If it contains more than 5mg/l Silver, it is a hazardous waste and must be handled accordingly. This solution can be treated for the recovery of the Silver. However, the recovery process is not economical on the scale of the SFMNHP operation. The Park should contact a commercial recovery contractor for proposals.
  - B. Estimated cost \$250 per year.

#### Maritime Museum - Exhibit Shop - Richard Everett, Foreman.

- Waste flammable and combustible solvents and solvent based paints.
  - A. Five to ten gallons per year. This waste should be consolidated with the Hyde Street Pier wastes for disposal.
  - B. Estimated cost: included with Hyde Street Pier wastes.
- 2. Aerosol containers and partially empty solvent and paint containers.
  - A. Annual quantity varies. Containers are currently disposed of as general trash. This is acceptable for <u>completely</u> empty paint and solvent containers only. Empty aerosol cans and partially empty paint and solvent containers should be stored in a location complying with the requirements of Uniform Fire Code Article 79 and Article 80 and the San Francisco Health Code. Arrange with permitted contractor for the packaging and transportation to an approved disposal facility.
  - B. Estimated cost: included with Hyde Street Pier wastes.

### <u>Liberty Ship "Jeremiah O'Brien</u> - Bob Burnett, Foreman. Includes east exterior of Pier 3.

- 1. Waste flammable and combustible solvents and solvent based paints.
  - A. An estimated average annual waste of 50 gallons. Wastes may be collected until a drum is filled. SFMNHP should arrange with a permitted contractor for transportation of drummed wastes to an approved disposal facility.
  - B. Estimated annual cost of \$300.
- Aerosol containers and partially empty solvent and paint containers.
  - A. Annual quantity varies. Containers are currently disposed of as general trash. This is acceptable for <u>completely</u> empty paint and solvent containers. Empty aerosol cans and partially empty paint and solvent containers should be stored in a location complying with the requirements of Uniform Fire Code Article 79 and Article 80. Arrange with permitted contractor for the packaging and transportation to an approved disposal facility.
  - B. Estimated cost \$1500 per year.
- Waste crankcase oil and other unidentified hydrocarbon wastes.
  - A. Estimated annual waste of 100-200 gallons. Wastes may be collected until a drum is filled. SFMNHP should arrange with a permitted contractor for the transportation of drummed wastes to an approved disposal facility.
  - B. Estimated annual cost of \$1000.

- Bilge water.
  - A. Estimated at 600-1000 gallons per year. It is our understanding that bilge water is currently pumped to a holding tank containing mixed wastes, including sanitary waste. This practice is unacceptable. The Jeremiah O'Brien should segregate the storage of bilge water and arrange with a permitted contractor for the transportation of accumulated waste to an approved disposal facility.
  - B. Estimated annual cost of \$5000.

#### Pier One - Shipwright Shop.

- 1. Waste flammable and combustible solvents and solvent based paints.
  - A. Estimated average annual waste of 50 gallons. Wastes can be accumulated until a drum is filled. SFMNHP should arrange with a permitted contractor for the transportation to an approved disposal facility.
  - B. Estimated annual cost of \$500.
- Aerosol containers and partially empty solvent and paint containers.
  - A. Containers are currently disposed of as general trash. This is acceptable for completely empty paint and solvent containers only. Empty aerosol cans and partially empty paint and solvent containers should be stored in a location complying with the requirements of Uniform Fire Code Article 79 and Article 80 and San Francisco Health Code. Arrange with permitted contractor for the packaging and transportation to an approved disposal facility.
  - B. Estimated cost \$750 per year.

#### III. COMPLIANCE ASSESSMENT:

#### A. Existing Programs.

The Park is presently in the process of developing a Hazardous Materials/Hazardous Waste Program under the guidance and direction of Mr. Michael Delano, Safety Officer. The development began in April 1991, with communication to all Park supervisors and managers requesting an inventory of hazardous materials within the park and recommending orientation training. Inventories had been compiled for most areas at the time of our survey. We reviewed the inventories for verification and added or corrected as necessary. Most of the inventories were comprehensive and fairly accurate in the quantity and description of materials.

The Park has not yet developed a program for the proper management of hazardous materials and hazardous wastes. Specific recommendations for compliance are included in the Executive Summary.

#### B. Specific Deficiencies.

Hyde Street Pier - Tam Halaj, Foreman.

San Francisco Bay Ferry "Eureka".

- (1) "Unknown" waste requires hazard determination per 40 CFR 262.11.
- (2) No hazardous waste labels on containers per 40 CFR 262.31.

Steel Hull Ship "Balclutha".

- (1) "Unknown" waste requires hazard determination per 40 CFR 262.11.
- (2) No hazardous waste labels on containers per 40 CFR 262.31.

Pump House - Ed Redford, Foreman.

- (1) "Unknown" waste requires hazard determination per 40 CFR 262.11.
- (2) No hazardous waste labels on containers per 40 CFR 262.31.

Maritime Museum - Photo Shop - Steve Danford, Foreman.

(1) The continuous discharge of spent photographic chemicals containing unknown quantity of Silver ions to the sanitary waste system may constitute an illegal discharge of Hazardous Waste. Per 40 CFR 262.11, it is necessary to determine the hazardous constituents of this discharge. If it contains more than 5mg/l Silver, it is a hazardous waste.

<u>Liberty Ship "Jeremiah O'Brien</u> - Bob Burnett, Foreman. Includes east exterior of Pier 3.

(1) Receiving and processing of hazardous wastes without permit, CRC Title 22.

- (2) No hazardous waste labels on containers (on pier) per 40 CFR 262.31.
- (3) Discharge of waste water containing hydrocarbons (bilge water) to sanitary sewer, CRC Title 22.

Pier One - Shipwright Shop - Mr. Oaks, Foreman.

- (1) "Unknown" waste requires hazard determination per 40 CFR 262.11.
- (2) No hazardous waste labels on containers per 40 CFR 262.31.

#### C. Recommendations for Compliance.

Due to the volume of waste accumulated (as noted in the forgoing physical inventory) over the past several years and currently awaiting disposal, the Park has triggered a host of hazardous waste non-compliance issues to which they would not normally be subject. These non-compliance issues, such as (1) storage of hazardous waste over 90 days without a Part B permit, (2) inadequate storage facility, (3) unknown and unlabeled containers, and (4) inadequate employee training for hazardous waste operations in addition to various other issues (all in accordance with 40 CFR 260 - 270 and 29 CFR 1910.120), either need to be addressed in a comprehensive Hazardous Waste Management Program developed immediately, or this accumulated hazardous waste needs to be disposed of as soon as possible. Even with the immediate disposal of this waste, the Park should develop an appropriate written Hazardous Waste Management Program based upon their identified waste streams.

Under current hazardous material regulations, the Park is required to develop a written Employee Hazardous Material Communication Program per 29 CFR 1910.1200 and The Health Code of the City of San Francisco.

We strongly recommend that the Jeremiah O'Brien immediately cease accepting waste crankcase oil and other related hydrocarbon wastes from the public, other areas of the park and other government agencies. We have been told that the Jeremiah O'Brien depends upon fuel donations for operation. The Park should accept no such donation without first determining that the fuel is free of contamination which would classify it as a hazardous material/hazardous waste. The approximately 4000 barrels of fuel currently on board should be sampled and tested for the presence of contamination which would classify it as a hazardous material. If it is found to be so contaminated, SFMNHP should arrange with a permitted contractor to pump the fuel from the tanks. Methods to decontaminate the tanks will require additional investigation. The permitted contractor should transport all contaminated fuel to an approved facility for disposal.

Current practices for storage and handling of hazardous materials throughout the Park are

contrary to accepted practices for safety and present a high level of risk to park employees and visitors. Specific regulatory issues are identified in Appendix 1. The Park should develop a program to bring practices within compliance.

Transportation of hazardous materials and hazardous wastes on public streets or highways in quantities exceeding 5 gallons or 50 pounds requires an appropriately permitted vehicle and a trained driver per DOT regulations 49 CFR.

#### D. Recommendations for Waste Reduction.

After the accumulated waste is disposed of, the normal sources of hazardous waste generation at SFMNHP are the ship maintenance and museum exhibit operations. The wastes consist primarily of waste paint, waste paint solvents and ship bilge water.

Many of the marine coatings required for maintenance of the ships are only available in solvent based formulas. Aqueous based products should be investigated for suitability for use in areas not exposed to the most extreme marine environments. Construction of displays and exhibits should also use non solvent based materials whenever suitable alternatives are available. Similarly, whenever possible, products in aerosol containers should be avoided. Many of the aerosol products encountered during our study (such as penetrating oils and light machine lubricants) are readily available in pump atomizing containers.

Other opportunities for waste reduction involve proper management of waste materials. Segregation of waste can dramatically reduce the cost of waste handling, storage and disposal. For example, bilge water uncontaminated with oil or other hazardous substances may be disposed of to the sanitary sewer system after testing for contamination for substantially less cost than if treated as a hazardous waste. We also recommend that the Park establish a central storage and distribution facility for all flammable and combustible liquids, such as gasoline, paint, paint solvents, etc. This would eliminate the need for additional and existing flammable lockers and would reduce the total volume of these materials on-hand within the Park. This in turn reduces the potential of these materials to become waste and/or a spill incident. This facility could be a joint hazardous materials and waste storage facility producing many management benefits, such as: inventory control, supervisory oversight, improved materials handling, record keeping, safety, etc.

#### E. Employee Training and Knowledge.

Many employees at SFMNHP have a great deal of experience with the most common class of hazardous material encountered, solvent based paints and paint solvents. Awareness of the hazards is high, as is willingness to observe proper safety procedures. This willingness is frustrated by the lack of adequate facilities, absence of a hazardous materials management plan, and little or no training. Material Safety Data Sheets are not generally available to persons handling or otherwise exposed to the material. Only the

Safety Officer has received formal instruction in the management of hazardous materials in the form of a one day "Orientation Training" session.

#### IV. TENANT ACTIVITIES.

#### A. Existing Park Programs

The Park currently has no program for monitoring the hazardous materials/hazardous waste activities of tenants.

# B. <u>Recommendations</u>

Require all tenants to develop an "Employee Hazardous Material Communications Program" per 29 CFR 1910.1200 and a "Hazardous Materials Management Plan" per 1991 Edition of Uniform Fire Code Article 80.103(b). This will probably not occur without considerable support and encouragement. Review the programs for consistency with SFMNHP guidelines and annually review compliance with the programs.

#### V. POTENTIAL HAZARDOUS WASTE SITES.

The following is a list of known or potentially contaminated sites by location and suspected hazard, which may require action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

1. Pump House, southwest corner of intersection of Jefferson Street and Hyde Street. The Pump House has for sometime been used for the storage of hazardous materials and hazardous wastes, mostly paint related products. The basement of the Pump House contains a sump which would function as a receptor in the event of liquid spills. The outlet of the sump was not investigated. The original use of the Pump House may have been to pump sea water for fire fighting. If this is the case, the sump may connect directly to the bay through a suction line. It is more likely, however, that the contents of the sump would drain to the soil beneath the Pump House.

#### VI. INVENTORY OF STORAGE TANKS.

Within the San Francisco Maritime Park there is one underground storage tank located at the corner of Jefferson and Hyde Streets buried under the sidewalk outside Haslett Warehouse. The size, condition and the last contents are unknown.

APPENDIX 1 - HAZARDOUS MATERIAL STORAGE AND HANDLING PER UFC, NFPA, ETC.

#### APPENDIX 1 - HAZARDOUS MATERIAL STORAGE AND HANDLING PER UFC, NFPA, ETC.

During our pre-survey discussions with NPS personnel, we learned that NPS management is uncertain of the jurisdiction of the Uniform Fire Code (UFC) at the SF Maritime NHP. Our research into the issue did little to resolve the uncertainty. The 1985 UFC, with San Francisco amendments, is currently statutory in the City of San Francisco. The 1985 UFC has relatively little to say about hazardous materials.

In our discussions with Cynthia Woo at the San Francisco Fire Department, we learned that the City is planning to pursue adoption of the 1991 UFC with amendments. Article 80 of that code is currently being recommended by the City as good practice for the storage and handling of hazardous materials. Article 80 of the UFC is universally recognized in the western United States as the model code for the storage and handling of hazardous materials. Since the San Francisco Maritime NHP depends upon the San Francisco Fire Department for response to hazardous materials incidents, it would seem that compliance with the UFC is indicated. The Park should therefor develop a written Hazardous Material Management Plan per the 1991 Edition of the Uniform Fire Code(UFC), Article 80.103(b).

Observations of non-compliance with other provisions of the Uniform Fire Code, 1991 edition and with the National Fire Codes (NFPA) are site specific and noted under the following respective management areas.

Hyde Street Pier - Tam Halaj, Manager.

San Francisco Bay Ferry "Eureka".

(1) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets per UFC Article 79.202; National Fire Codes, NFPA 30-4 and NFPA 913-4-8.1. (2) Unlabeled drums per UFC Article 79.108.

Steel Hull Ship "Balclutha".

(1) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets or in cabinets of substandard condition per UFC Article 79.202; National Fire Codes, NFPA 30-4 and NFPA 913-4-8.1. (2) "Paint locker" of substandard construction and not properly ventilated per UFC Article 79.203, NFPA 30-4. (3) Unlabeled drums per UFC Article 79.108. (4) Cutting and welding operations in areas with combustible and flammable liquid use and dispensing per NFPA 51B-3. (5) Gas cylinders not adequately secured to prevent falling per UFC Article 74.107.

Emergency Gear Locker.

(1) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets per UFC Article 79.202; National Fire Codes, NFPA 30-4, or the building does not comply with requirements for liquid storage warehouse as per UFC Article 79.204 and National Fire Codes, NFPA 30-4. (2) Gas cylinders are not adequately secured to prevent being knocked over per UFC Article 74.107.

Storage Cabinets North of Emergency Gear Locker.

(1) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets or in cabinets of substandard condition per UFC Article 79.202; National Fire Codes, NFPA 30-4. (2) Gas cylinders are not adequately secured per UFC Article 74.107. (3) Not protected from tampering or trespassers per National Fire Codes, NFPA 30-4. (4) Lack of spill control, drainage control and secondary containment per UFC Article 79.115, Article 80.301.

Hyde Street Pier - Area Along West Exterior Wall of Bookstore.

(1) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets per UFC Article 79.202; National Fire Codes, NFPA 30-4.

Hyde Street Pier - Small Boat Shop - Bill Doll, Manager.

(1) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets or in cabinets of inappropriate design per UFC Article 79.202; National Fire Codes, NFPA 30-4. (2) Gas cylinders not adequately secured per UFC Article 74.107. (3) Outdoor storage area not graded to divert spills per National Fire Codes, NFPA 30-4. (4) Lack of spill control, drainage control and secondary containment per UFC Article 79.115, Article 80.301.

# Pump House - Ed Redford, Manager.

(1) Building does not comply with requirement for liquids warehouse per UFC Article 79.204; National Fire Code, NFPA 30-4. (2) Building not protected by fire sprinkler system per UFC Article 79.204; National Fire Codes, NFPA 13. (3) Lack of ventilation system per UFC Article 79.204, Article 80.301; National Fire Codes, NFPA 30-4. (4) Inadequate shelf storage (no lip or guard) per UFC 80.301(i). (5) Inadequate separation and aisles per UFC Article 79.203 and National Fire Codes, NFPA 30-4. (6) Lack of storage plan per UFC Article 80.301(k) (7) Lack of spill control, drainage control and secondary containment per UFC Article 79.115, Article 80.301 (8) Storage in basement (stairwell) of Class I liquid per UFC Article 79.204; National Fire Code, NFPA 30-4. (9) Unlabeled drums per UFC Article 79.108. (10) Lack of warning signs on building per UFC Article 79.109. (11) Not protected from tampering or trespassers per National Fire Codes, NFPA 30-4.

#### Haslett Warehouse - Ed Redford, Manager.

(1) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets per UFC Article 79.202; National Fire Codes, NFPA 30-4. (2) Gas cylinders not adequately secured per UFC Article 74.107.

#### Maritime Museum - Photo Shop - Steve Danford, Manager.

(1) Flammable solids storage area does not comply with Group H, Division 3 Occupancy per UFC Article 80.305. (2) Flammable solids storage (household

refrigerators) not seismically braced per UFC Article 80.301. (3) Flammable solids storage not provided with explosion control per UFC Article 80.305. (4) Storage of flammable solids in basement per UFC Article 80.305.

## Maritime Museum - Exhibit Shop - Richard Everett, Manager.

(1) Class I Flammable liquids stored and used in basement in violation of National Fire Codes NFPA 30-4. (3) Class I Flammable liquids use in improperly ventilated area per National Fire Codes NFPA 30-5.

# <u>Liberty Ship "Jeremiah O'Brien</u> - Bob Burnett, Manager Includes east exterior of Pier 3.

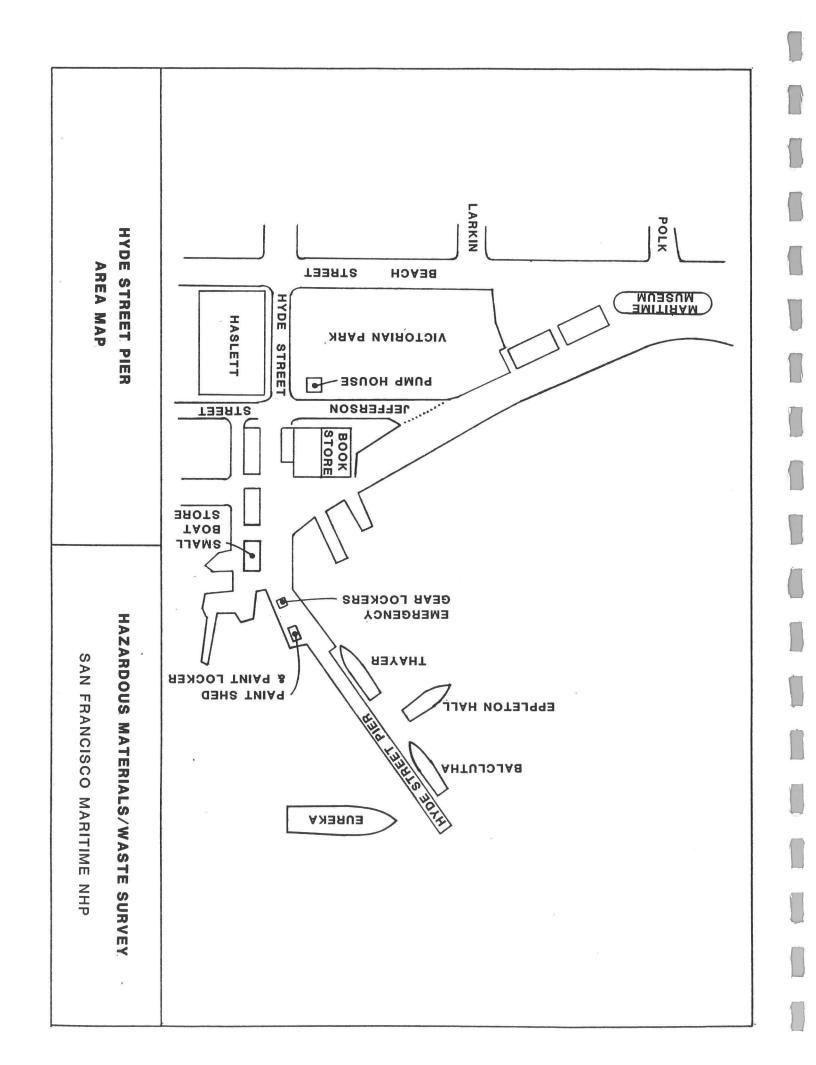
(1) Class I, II, and III flammable and combustible liquids are stored outside (on pier) not protected from tampering or trespassers per National Fire Codes, NFPA 30-4. (2) Lack of spill control, drainage control and secondary containment (on pier) per UFC Article 79.115, Article 80.301 and National Fire Codes, NFPA 30-4. (3) Unlabeled drums (on pier) per UFC Article 79.108. (4) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets in violation of UFC Article 79.202; National Fire Codes, NFPA 30-4. (5) Storage of Class II combustible liquids in quantities above exempt amount in liquid storage room of inadequate design and construction per UFC Article 79.203 and National Fire Codes NFPA 30-4. (6) Class I flammable liquids use in improperly ventilated area per National Fire Codes NFPA 30-5.

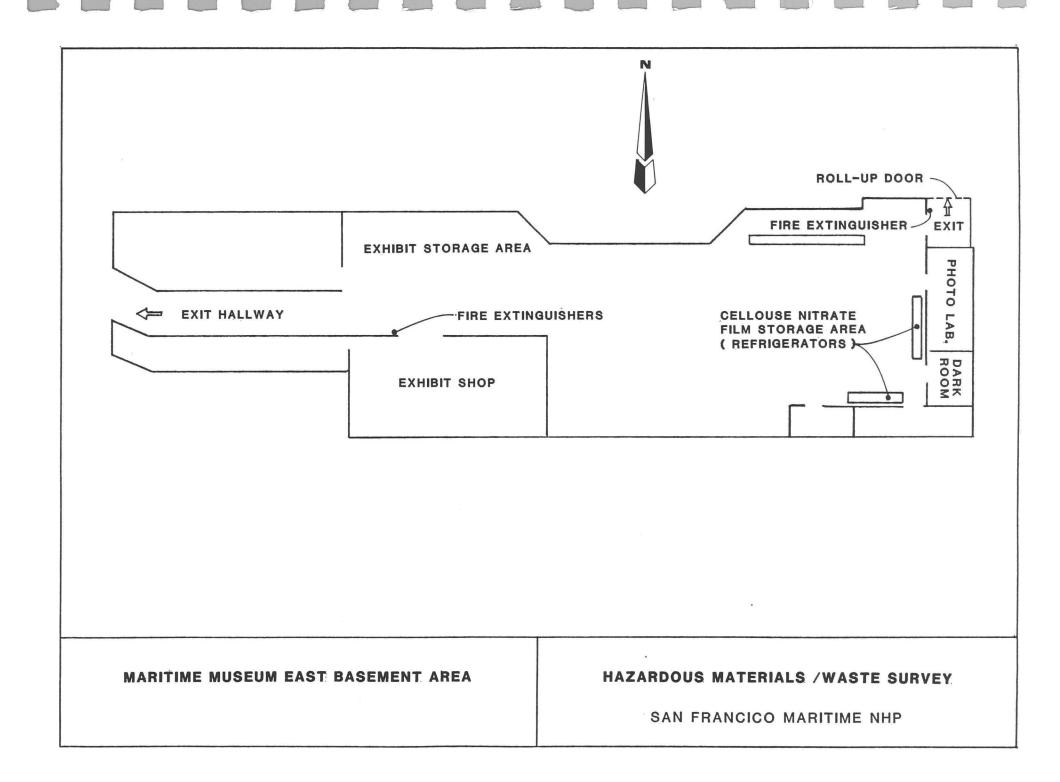
#### Pier One - Shipwright Shop.

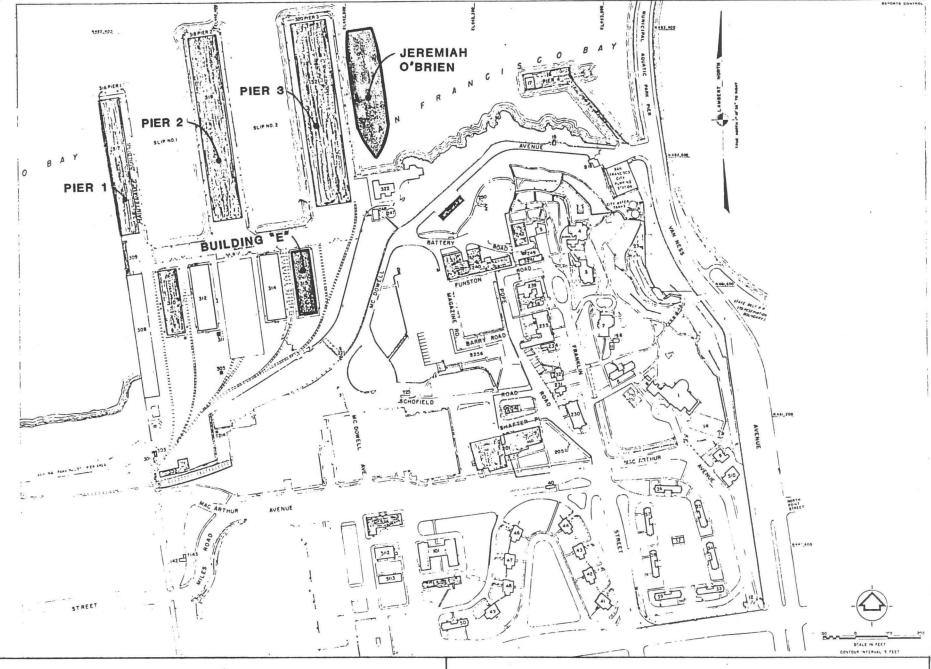
Includes storage sheds east of pier building.

(1) Lack of spill control, drainage control and secondary containment per UFC Article 79.115, Article 80.301 and National Fire Codes, NFPA 30-4. (2) Unlabeled containers per UFC Article 79.108. (3) Class I, II, and III flammable and combustible liquids are stored outside of approved storage cabinets or cabinets of substandard condition per UFC Article 79.202; National Fire Codes, NFPA 30-4. (4) Class I flammable liquids use in improperly ventilated area per National Fire Codes NFPA 30-5.

APPENDIX 2 - SITE MAPS, BUILDING FLOOR PLANS

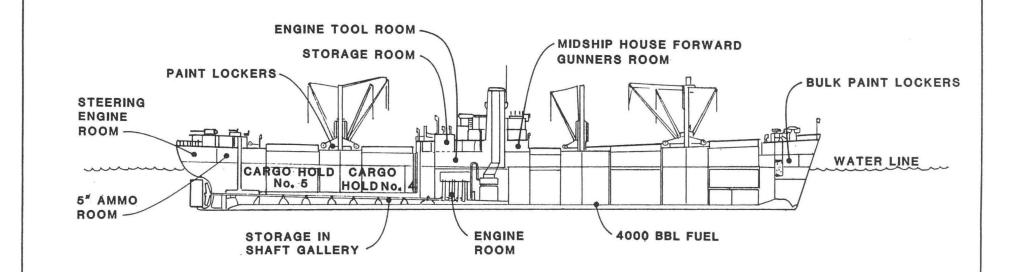






FORT MASON AREA MAP

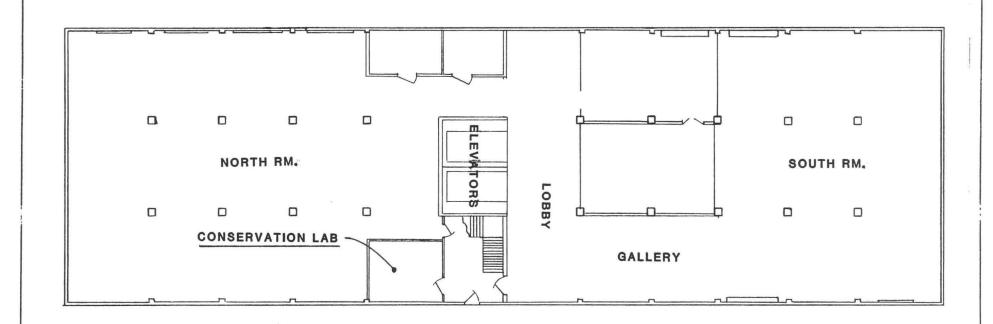
HAZARDOUS MATERIALS/WASTE SURVEY
SAN FRANCISCO MARITIME MUSEUM NHP



JEREMIAH O'BRIEN

HAZARDOUS MATERIALS/WASTE SURVEY

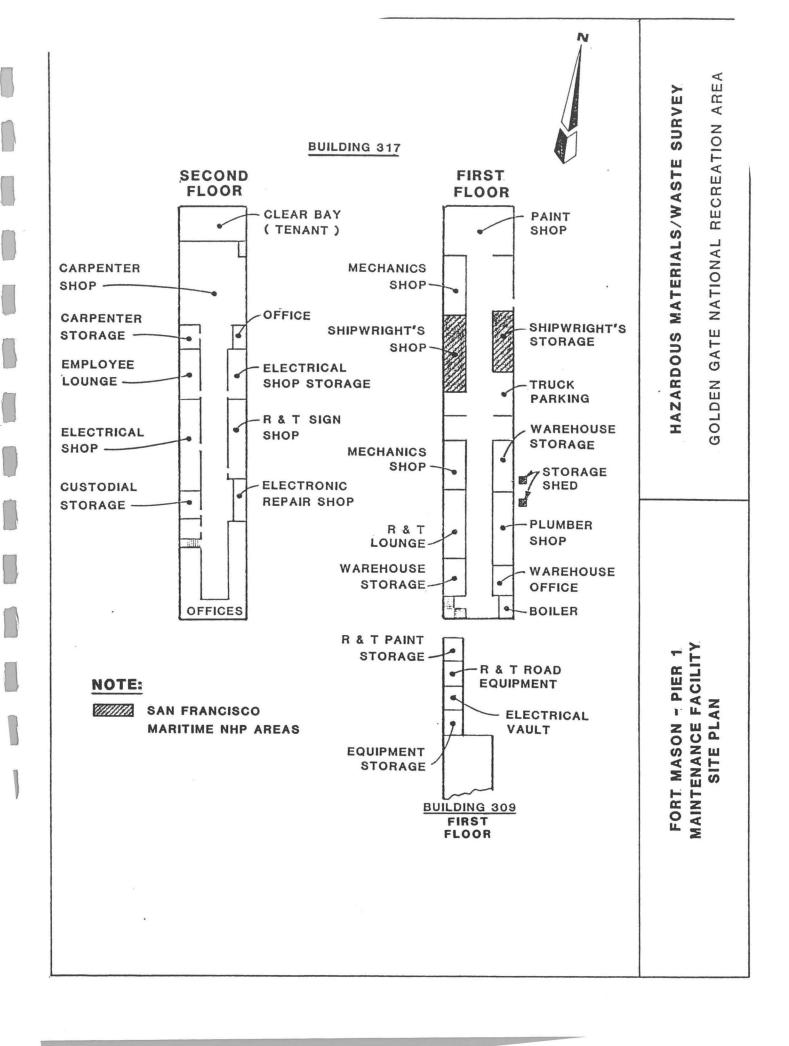
SAN FRANCISCO MARITIME NHP

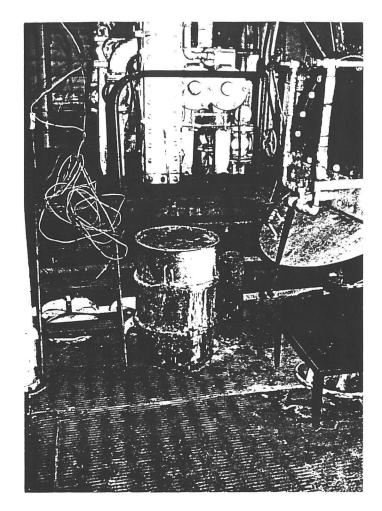


BUILDING E FIRST FLOOR PLAN

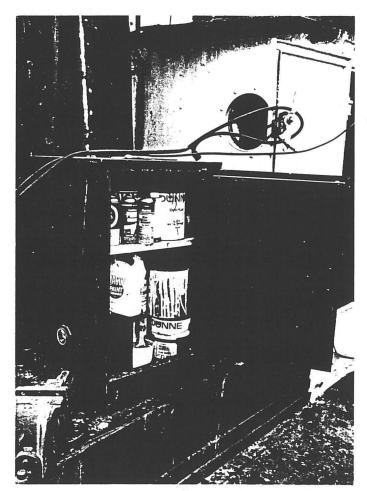
HAZARDOUS MATERIALS/WASTE SURVEY

SAN FRANCISCO MARITIME NHP





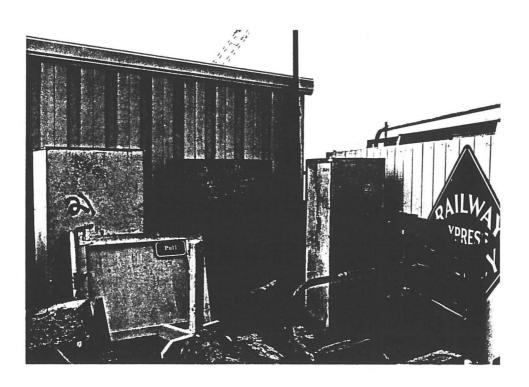
"UNKNOWN" LIQUID SUSPECTED TO BE BILGE WATER ON "EUREKA"



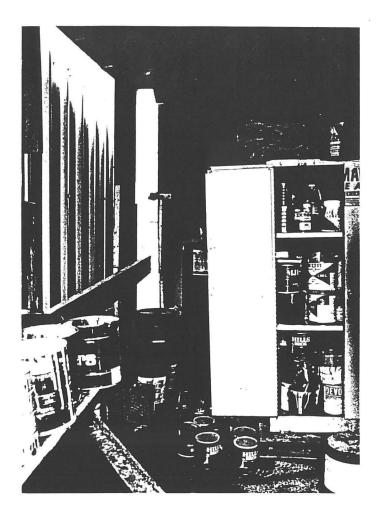
PAINT STORAGE IN CABINET ON DECK OF "EPPLETON HALL"







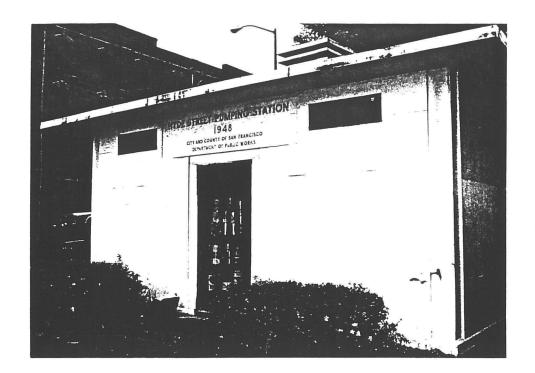
STORAGE CABINETS ON HYDE STREET PIER



STORAGE AREA EAST OF SMALL BOAT SHOP - HYDE STREET PIER VIEW 1



STORAGE AREA EAST OF SMALL BOAT SHOP - HYDE STREET PIER VIEW 2



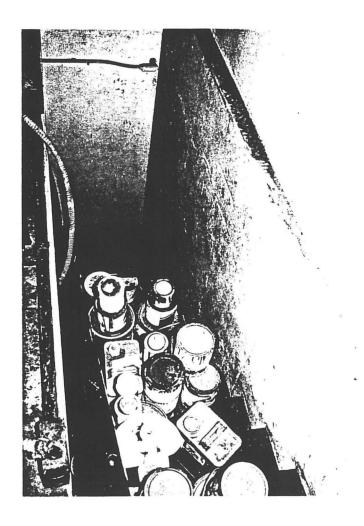
PUMP HOUSE EXTERIOR



PUMP HOUSE STORAGE ARRANGEMENT

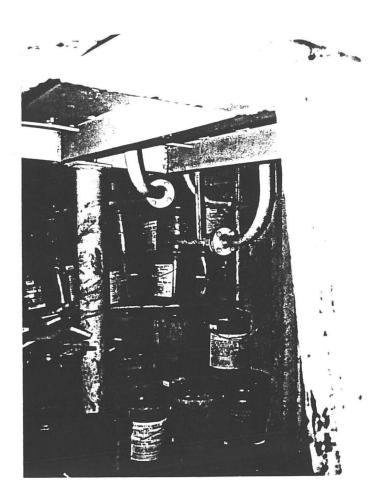


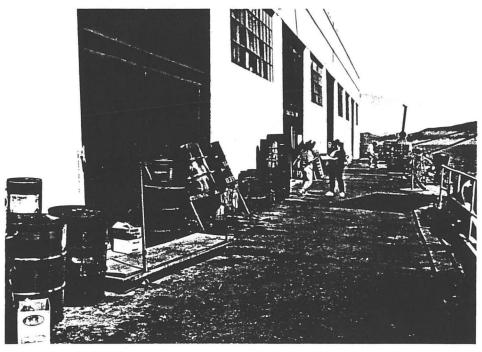
PUMP HOUSE STORAGE ARRANGEMENT



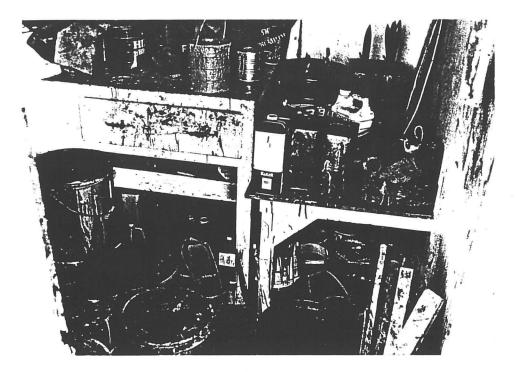
PUMP HOUSE WASTE STORAGE IN STAIRWELL TO BASEMENT







PIER THREE WASTE OIL AND WASTE THINNER BELONGING TO JEREMIAH O'BRIEN



JEREMIAH O'BRIEN "WORKING" PAINT LOCKER ON MAIN DECK AT AFT CARGO MAST

Code of Federal Regulations 29 CFR Parts 1910.1200 40 CFR Parts 190 - 300 49 CFR Parts 171 - 173.

NIOSH "Guide to Chemical Hazards", 1985

National Fire Protection Association
National Fire Codes

International Conference of Building Officials
Uniform Fire Code, 1991
Uniform Building Code, 1991

San Francisco Municipal Code Part II, Chapter V: Health Code

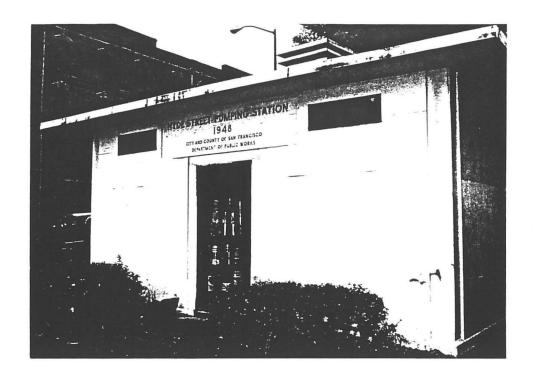
San Francisco Fire Department
Cynthia Woo (415)554-2723.
Conversations regarding San Francisco regulatory requirements.

San Francisco Maritime National Historical Park
Mike Delano, Safety Officer
Hazardous Materials Inventory Sheets.
Conversations regarding current practices.

Romic Chemical Corporation 2081 Bay Road East Palo Alto,CA 94303 (415)324-2965

North State Environmental P.O.Box 5624 South San Francisco,CA 94083 (415)588-2838

United States Department of the Interior National Park Service Western Region Directive: WR-061 "Handling Storage and Disposal of Hazardous Waste"



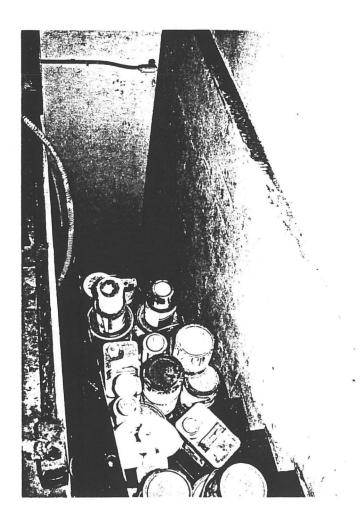
PUMP HOUSE EXTERIOR



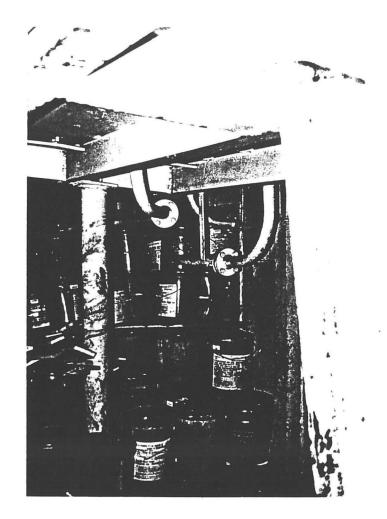
PUMP HOUSE STORAGE ARRANGEMENT



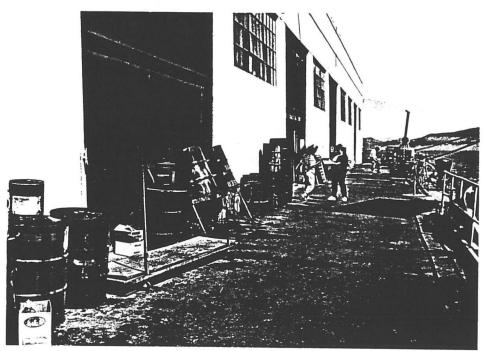
PUMP HOUSE STORAGE ARRANGEMENT



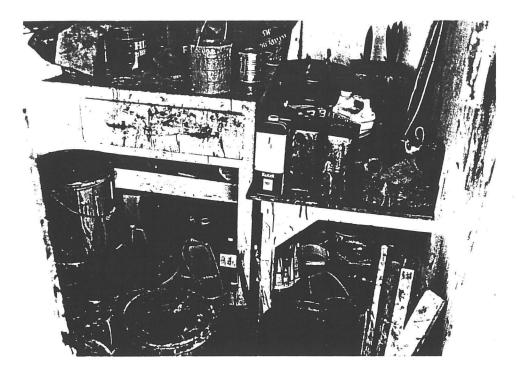
PUMP HOUSE WASTE STORAGE IN STAIRWELL TO BASEMENT



JEREMIAH O'BRIEN BULK PAINT LOCKER



PIER THREE WASTE OIL AND WASTE THINNER BELONGING TO JEREMIAH O'BRIEN



JEREMIAH O'BRIEN "WORKING" PAINT LOCKER ON MAIN DECK AT AFT CARGO MAST

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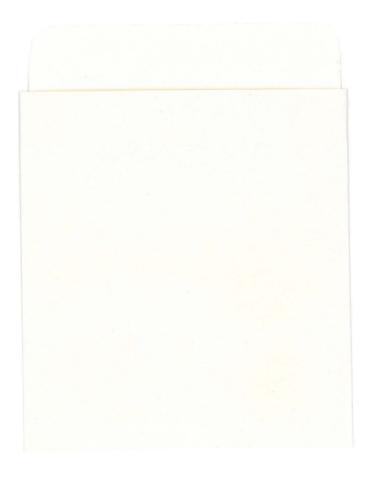
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J. Porter Shaw Library S.F. Maritime NHP



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